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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

REPLY BRIEF FOR THE APPELLANT

Ex parte BOWES

HIGH SPEED FLOW CONTROL METHODOLOGY

Serial No. 09/709,532

Appeal No.:

Group Art Unit: 2616

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THE UNITED STATES PATENT AND TRADEMARK OFFICE
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In re the Appellant:

Michael J. Bowes

Appeal No.:

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Filed: November 13, 2000

Examiner: Michael J. Moore

For: HIGH SPEED FLOW CONTROL METHODOLOGY

REPLY BRIEF

March 21, 2007

I. INTRODUCTION

This Reply Brief is filed in response to the Examiner's Answer dated January 31, 2007. In that Examiner's Answer, while no new grounds of rejection are made, comments and explanations are provided which are tantamount to new points of argument. This Reply Brief, therefore, is submitted to address these new points of argument, and to clarify why claims 1, 2, and 4-38 of the pending application should be considered to be patentable over Beuk and Meyer under 35 USC § 102 and 35 USC § 103, and therefore should be found by this Honorable Board of Patent Appeals and Interferences to be allowable.

II. STATUS OF CLAIMS

Claims 1, 2 and 4-38, all of the claims pending in the present application, are the subject of this appeal. Claims 1, 2, 4-12, 14, and 16-38 were rejected under 35 U.S.C. §102(b) as being anticipated by Beuk (U.S. Patent No. 5,774,673). Claims 13 and 15

were rejected under 35 U.S.C. 103(a) as being unpatentable over Beuk in view of Meyer (U.S. Patent No. 6,611,495).

III. APPELLANT'S ARGUMENTS

Appellants respectfully submit that each of pending claims 1, 2, and 4-38 recites subject matter that is not taught, disclosed, or suggested by the cited art. Claims 1, 2, 4-12, 14, and 16-38 stand rejected under 35 U.S.C. §102(b) as being anticipated by Beuk (U.S. Patent No. 5,774,673).

As discussed in Appellant's Appeal Brief, Beuk does not disclose or suggest "wherein said step of transmitting a packet request message further comprises the step of generating the packet request message, the step of generating the packet request message comprising generating a request non-payload bit string corresponding to a pre-programmed packet request register," as recited in claim 1. Beuk also fails to disclose or suggest "wherein the packet request message and the request acknowledge message each include a control bit string, an identification bit string, and at least one parity bit," as recited in claim 1.

In the Examiner's Answer, the Examiner appears to take the position that the TYPE field of frames 610 and 630 of Beuk corresponds to "a request non-payload bit string corresponding to a pre-programmed packet request register," as recited in claim 1 (Examiner's Answer, page 4, first paragraph). The Examiner's Answer then also takes the position that the TYPE field of Beuk corresponds to the control bit string, identification bit string and at least one parity bit that are included in the packet request message and the request acknowledge message of the present invention (Examiner's Answer, page 4,

third paragraph). Appellants respectfully submit, however, that Beuk contains no disclosure regarding the TYPE field being a request non-payload bit string corresponding to a pre-programmed packet request register, and a control bit string, identification bit string and at least one parity bit.

Rather, Beuk merely discloses that various frames (acknowledgement frame, broadcast frame, group frame) include a TYPE field. Specifically, Beuk teaches that the “TYPE field comprises an A/M field and an B/G field. The A/M field is used to distinguish between an acknowledgment frame and a message frame. The B/G field is used to distinguish between the two types of message frames: a broadcast frame and a group frame” (Beuk, Column 12, lines 36-42). Beuk does not disclose or suggest that the TYPE field corresponds to any type of register. In this regard, the Examiner’s Answer took the position that the TYPE field corresponds to a receiving means 210 in Figure 2 of Beuk (Examiner’s Answer, page 16, fourth paragraph). Beuk, however, only discloses that the TYPE field includes entries which indicate whether it is an acknowledgement or message. The receiving means 210 of Beuk only receives a group frame 630 if the channel field specifies a channel which has been locally activated by the activation means 240 (Beuk, Column 12, lines 9-12). Beuk does not teach generating a TYPE field corresponding to the receiving means 210.

Moreover, Appellants submit that the message receiving means of Beuk does not correspond to the pre-programmed packet request register of the present invention. Beuk discloses that the message receiving means 210 is for receiving a message frame (Beuk, Column 11, lines 33-34). Further, as mentioned above, Beuk discloses that “the message receiving means 210 only receives a group frame 630 if the channel field

specifies a channel which has been locally activated (i.e. in the receiving apparatus) by the channel activation means 240” (Beuk, Column 12, lines 9-12). Beuk also discloses that the message receiving means 210 receives the “activation request message 500 and verifies that the message has been received correctly.” Beuk, however, fails to disclose or suggest that the message receiving means is pre-programmed and that it corresponds to the request non-payload bit string. The Examiner’s Answer does not seem to provide a rationale regarding why the receiving means 210 would be considered equivalent to the pre-programmed packet request register. The Examiner’s Answer, like the final Office Action, merely concludes that the TYPE fields of frames 610 and 630 of Figure 3 of Beuk have a correspondence with a particular receiving means 210 of Figure 2 (Examiner’s Answer, page 16 and final Office Action, page 3). Appellants respectfully disagree.

Beuk, as mentioned above, merely discloses that the message receiving means 210 is a component which may receive a group frame under certain circumstances. Beuk does not disclose or suggest that generating a packet request message includes generating a request non-payload bit string corresponding to a pre-programmed packet request register, as recited in the claims. In other words, according to the Office Action’s rationale, Beuk allegedly discloses that the TYPE field of the frames 610 and 630 is generated in order to correspond to the message receiving means 210. However, Beuk contains no such disclosure. Beuk only discloses that the message receiving means 210, as suggested by its name, may receive message frames such as the group frame 630. Therefore, for at least the reasons discussed above, Beuk fails to disclose or suggest “wherein said step of transmitting a packet request message further comprises the step of generating the packet request message, the step of generating the packet request

message comprising generating a request non-payload bit string corresponding to a pre-programmed packet request register,” as recited in claim 1.

Appellants respectfully submit that Beuk also fails to disclose or suggest all of the elements of claims 14 and 28. More specifically, Beuk fails to disclose or suggest that the first identification number and the second identification number are configured to correlate the packet request message with a corresponding request acknowledge message, as recited in claims 14 and 28. In one embodiment of the present invention, the packet request message and the request acknowledge message both include an identification string.

According to an aspect of the invention, this identification string is used to identify and correlate a specific packet request message with the corresponding request acknowledge message. Through implementation of this correlation scheme, accurate flow control across a high speed link is generated and, therefore, queue or buffer management requirements are reduced at the receiving end (Specification, page 108, lines 19-28). Appellants respectfully assert that Beuk fails to disclose or suggest that the identification strings are configured to correlate the packet request message with the corresponding request acknowledge message, as recited in the present claims.

The final Office Action took the position that the identification bit string correlating the packet request message with a corresponding request acknowledge message “is anticipated by the channel field (first identification number) shown in group frame 630 (packet request message) of figure 3 that is copied (correlates) to the channel field (second identification number) of acknowledgement frame 640 (request acknowledgment message) of figure 3 and that is used to filter acknowledgement

messages as spoken of on column 4, lines 38-48 and column 12, lines 19-28" (Office Action, page 8, lines 15-22). The Examiner's Answer maintains this rationale as explained on page 18 thereof. However, Appellants respectfully disagree with the conclusions made in the final Office Action and repeated in the Examiner's Answer. Appellants respectfully assert that copying a first identification number to another location does not produce a second identification number. Further, if the channel field is merely copied to a different location as disclosed in Beuk there would be no need to determine "if the second identification number matches the first identification number," as recited in claim 14 and similarly recited in claim 28. Appellants further assert that copying a field to another field is not the same as correlating a request message with an acknowledge message, as recited in the present claims.

Additionally, Beuk specifically discloses that the channel field, included in the group frame 630, is used for identifying a communication channel. Each apparatus of Beuk includes channel activation means 240 for locally activating specific communication channels. The message sending means 200 only transmits a group frame 630 if the channel field specifies a channel which has been locally activated by the channel activation means 240 (Beuk, Column 11, line 67 - Column 12, line 7). Beuk further discloses that "the acknowledgement frame 640 for acknowledging a group frame 630 may comprise the same channel field as used for the group frame 630. In that case, the acknowledge sending means 220 will only transmit an acknowledgement frame, acknowledging the reception of the group frame, if the message receiving means 210 of Fig. 2 correctly receives a group frame, whose channel field specifies a locally activated channel. The acknowledge sending means 220 copies the channel identification from

the channel field of the received group frame to the channel field of the acknowledgement frame” (Beuk, Column 12, lines 10-28).

Therefore, according to Beuk, the channel field is utilized to identify a communication channel. In addition, according to Beuk, a determination is made whether to transmit a group frame based on whether the channel field specifies a locally activated channel. However, Beuk does not disclose or suggest that the channel field is used to identify and correlate a specific request message with a corresponding acknowledgment message. Beuk merely discloses that the acknowledgment frame may include the same channel field as the group frame, and that the channel identification may be copied from the channel field of the received group frame to the channel field of the acknowledgment frame. The channel identification, as suggested by its name, is used to identify the communication channel used. Beuk does not disclose or suggest that the channel field or channel identification is used to correlate a specific request message with a corresponding acknowledgment message, as recited in the present claims.

The Examiner’s Answer acknowledges that the channel field of Beuk is used to identify a communication channel, but alleges that the channel field also “correlates a packet request message with a corresponding request acknowledge message” (Examiner’s Answer, page 18). However, as outlined above, the mere fact that Beuk discloses that the channel field may be copied from one location to another does not anticipate the limitation of “wherein the first identification number and the second identification number are configured to correlate the packet request message with a corresponding request acknowledge message,” as recited in claim 14 and similarly recited in claim 28.

Thus, for at least the reasons discussed above, Appellants respectfully submit that Beuk fails to disclose or suggest all of the elements of claims 14 and 28. Accordingly, the Board's consideration and reversal of the rejection thereof is respectfully requested.

Claims 2, 4-12, 16-27, and 29-38 are dependent upon claims 1, 14, and 28, respectively, and recite additional limitations. For at least the reasons discussed above, Appellants respectfully submit that the final Office Action has failed to establish a prima facie case for anticipation with respect to claims 1, 2, 4-12, 14, and 16-38. Accordingly, Applicants respectfully request that the rejection of claims 1, 2, 4-12, 14, and 16-38 be reversed and these claims allowed.

Claims 13 and 15 were rejected under 35 U.S.C. §103(a) as being unpatentable over Beuk in view of Meyer (U.S. Patent No. 6,611,495). The final Office Action took the position that Beuk teaches all of the elements of claims 13 and 15, with the exception of the starting of a timer upon transmission of a packet request message and retransmitting the message if a predetermined period of time has passed. The final Office Action then relies upon Meyer to cure the deficiency in Beuk.

Appellants submit that each of claims 13 and 15 recite subject matter that is not taught or disclosed by the combination of Beuk and Meyer, and as such, the Board's reversal of the rejection is respectfully requested.

Claim 13 is dependent upon claim 1, and additionally recites "starting a timer upon transmitting the packet request message; determining if a predetermined period of time has expired; and resending the packet request message if the timer is determined to have expired." Furthermore, Appellants respectfully submit that Meyer fails to cure the deficiencies in Beuk with respect to claim 1. Meyer, like Beuk, does not disclose or

suggest “wherein said step of transmitting a packet request message further comprises the step of generating the packet request message, the step of generating the packet request message comprising generating a request non-payload bit string corresponding to a pre-programmed packet request register,” and “wherein the packet request message and the request acknowledge message each include a control bit string, an identification bit string, and at least one parity bit,” as recited in claim 1. Therefore, the combination of Beuk and Meyer fails to disclose or suggest all of the elements of claim 13.

Claim 15 is dependent upon claim 14, and additionally recites “starting a timer upon transmitting the packet request message; determining if a predetermined period of time has expired; and re-transmitting the packet request message if the predetermined period of time is determined to have expired.” Appellants submit that Meyer, like Beuk, fails to disclose or suggest all of the elements of claim 14. Both Meyer and Beuk fail to disclose or suggest that the first identification number and the second identification number are configured to correlate the packet request message with a corresponding request acknowledge message, as recited in claim 14. . Therefore, the combination of Beuk and Meyer fails to disclose or suggest all of the elements of claim 15.

For all of the above noted reasons, it is strongly contended that certain clear differences exist between the present invention as claimed in claims 1, 2, and 4-38 and the prior art relied upon by the Examiner. It is further contended that these differences are more than sufficient that the present invention would not have been obvious to a person having ordinary skill in the art at the time the invention was made.

This final rejection being in error, therefore, it is respectfully requested that this honorable Board of Patent Appeals and Interferences reverse the Examiner's decision in

this case and indicate the allowability of application claims 1, 2 and 4-38.

In the event that this paper is not being timely filed, the applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension together with any additional fees which may be due with respect to this paper may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

SQUIRE, SANDERS & DEMPSEY LLP

A handwritten signature in black ink, appearing to read 'Majid S. AlBassam', written in a cursive style.

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